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## Divisibility in ${}^*N$ and $\beta N$

We investigate properties of the extension  ${}^*|$  of the divisibility relation to a set  ${}^*N$  of nonstandard integers, as well as its extension  $\widetilde{|}$  to the Stone-Čech compactification  $\beta N$ . Using the connection between  ${}^*N$  and  $\beta N$ , we obtain a new equivalent condition for  $\widetilde{|}$ . This illuminates the situation on the lower levels of the  $\widetilde{|}$ -hierarchy of ultrafilters. We also use limits by ultrafilters to get some results on ultrafilters on the higher levels of this hierarchy.